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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,113	10/17/2003	Paul O. Detwiler	11270.00	9240
26884	7590	08/09/2004	EXAMINER	
PAUL W. MARTIN LAW DEPARTMENT, WHQ-4 1700 S. PATTERSON BLVD. DAYTON, OH 45479-0001			HESS, DANIEL A	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,113

Applicant(s)

DETWILER ET AL.

Examiner

Daniel A Hess

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11 and 22-35 is/are rejected.
7) ☒ Claim(s) 12-21 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11 and 22-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan (US 6,631,845).

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Re claims 1: Barkan teaches (see notably figures 1 and 2) a two-window optical scanner wherein, as is clearly apparent in figure 2, each portion of the scanner has its own set of scanning optics such that there is very significant coverage, as a scanning pattern of figure 2 illustrates.

Barkan does not explicitly recite that the horizontal scanning assembly covers the bottom side, an operator side, a leading side and a trailing side, while the vertical scanning assembly scans a customer side, leading side, trailing side and a top side.

However, it is clear from figure 2 that any object properly placed will be bathed in scan lines coming from many angles from both the vertical and horizontal scanning windows, and if the object is not too large, scan lines can hit every face in a manner that meets the claimed limitations.

Since the configuration of Barkan is similar to that of the instant invention, it is reasonable to decide that the respective coverages would be similar.

Re claims 2: See figure 2: There are mirrored polygon spinners 32 and 72 respectively.

Re claims 3: The spinning mirrors can be adjusted in position to be located at a number of locations as a matter of design variation while still achieving good coverage. See for example Ohkawa et al. (US 6,462,882) – figure 3, where a single rotating mirror exists and is placed differently from the mirrors of Barkin.

Re claim 4: See figure 4 of Barkan: v1-v4 comprise a mirror basket around rotating mirror 72/73. This type of arrangement applies to both the vertical and horizontal windows.

Re claim 5: Bilateral symmetry is shown in figures 3 and 4 of Barkin.

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Re claim 6: Barkan (column 2, lines 28-32) employs two lasers, one being a part of each window's associated optics.

Re claim 7: Barkan clearly generates many scan lines. While the number may not be exactly 56, achieving 56 scan lines would be simply a matter of optimization within the normal range of Barkan. The applicant has not shown that there is any unexpected result which occurs with 56 scan lines; nor does the examiner have reason to believe there is such.

Re claim 8: Again, this is a matter of optimization within the normal range. See discussion re claim 7 above.

Re claim 9: See claim 1 of Barkan: a plurality of detectors detect light respectively returning from the two windows.

Re claims 10, 11: Control circuitry to obtain the scanned codes is a necessary element for the scanners to fulfill their purpose.

Re claim 22: Two photodiodes 28 and 68 are present (column 7, line 9). Each of these will obviously have its own signal that needs to be processed into barcode data.

Re claims 23, 24: The scanning pattern of figure 2 can be considered "substantially omnidirectionally." Scanning from many directions takes place for both the vertical and horizontal windows.

Re claims 25 and 26: The exact position of the intermediate side is not clear from the claim, but nevertheless, as stated earlier, it is clear from figure 2 that any object properly placed will be bathed in scan lines from many directions – this means that an intermediate face is likely to be picked up.

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Re claim 27: An object properly placed in Barkan will be bathed in scan lines coming from many angles from both the vertical and horizontal scanning windows. As for the ability to scan truncated barcodes, this would be inherent since a truncated bar code is in reality just a short bar code, and thus a scanner that can read a barcode should be able to read it.

Re claim 28: See claim 1 for a discussion of the limitations recited in the first three paragraphs; regarding the limitation in the fourth paragraph, see discussion re claim 25 above.

Re claims 29-31: See discussion re claim 25 above.

Re claim 32: See discussion re claim 27 above.

Re claim 33: As stated previously, an object properly placed in Barkan will be bathed in scan lines coming from many angles from both the vertical and horizontal scanning windows.

Allowable Subject Matter

Claims 12-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Discussion will be made of the limitations of claim 12. Other claims either depend from claim 12, are similar to claim 12, or depend from a claim that is similar to claim 12.

In particular, the prior art of record fails to teach or fairly suggest (in a system having all of the limitations of claim 1) both primary and secondary pattern mirrors such

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that the primary pattern mirrors direct a first group of scan lines through the aperture and a second group to the secondary mirrors where they are reflected out of the aperture. The nearest known prior art of record is Acosta (US 6,585,161); see column 3, lines 15-32: primary pattern mirrors exist but only direct light to the secondary mirrors; there is not two groups coming from the primary pattern mirror.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Check et al. (US 6,758,402), Ohkawa et al. (US 6,631,844) and several others, Bobba et al. (US 6,568,598) and several others, Detwiler (US 6,502,753) and Tang et al. (US 5,886,336) all teach dual window scanners similar to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A Hess whose telephone number is (571) 272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DH

Daniel A Hess
Examiner
Art Unit 2876

**DANIEL STCYR
PRIMARY EXAMINER**

